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“Nominations across Gender: An Empirical Investigation of Brazilian Municipal Elections”

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# “Nominations across Gender: An Empirical Investigation of Brazilian Municipal Elections”

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*This work project studies the variation in female candidates for Brazilian city council elections. Using cross-sectional data for two election years, the impact of cultural, socio-economic and political variables is measured, followed by a calculation of the optimal values of the variable under study according to three interests: parties' electoral results, male candidates' electoral results and female candidates' electoral results. We find that, though the first set of variables is significant, it explains only a small part, but average values of female candidates on parties' lists are apparently converging to male's optimum, suggesting that incumbents interests are dominating nominations.*

**Keywords:** Women's representation; Gender Quotas; Nomination; Brazil.

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## I. Introduction

*“No written law has ever been more binding than unwritten custom supported by popular opinion.”* Carrie C. Catt, Speech at the Senate on woman's suffrage, February 13, 1900.

In an effort to fight the under-representation of women in elected political offices, numerous countries have been discussing the implementation of affirmative actions as a

strategy to increase women's participation<sup>1</sup>. In Brazil, legislative gender quotas were established in 1995, in all proportional representation elections, but the percentage of women nominated remained below what was stipulated. While legislation may be responsible for the overall lack of quota fulfillment<sup>2</sup>, the fact that there were some lists where women were in the majority calls for further investigation.

In this work project we will focus on the 2000 and 2004 Brazilian municipal elections for city councils. Both elections occurred under the same quota legislation and our goal is to understand i) which factors are influencing the probability of a woman being a candidate ii) what is the relation between the increase of women on parties' lists and electoral results.

Some characteristics render the study of Brazilian elections particularly interesting. First, the country's dimension, constituted by 5562 municipalities with a wide range of sizes (the biggest one, São Paulo, had a population of 10,434,252 in 2009) ,with heterogeneity in cultural and socio-economic dimensions, and quite different results in terms of nominated and elected women, provide us enough variance to give consistency to our study. Secondly, it is one of the few countries in the world with an "open-list" system. This system creates an interesting dynamic by giving a smaller role for parties concerning who is elected (increasing the importance of variables capturing voter's perception of candidates gender) and by potentiating intra-party competition. These aspects require different approaches to women's representation under gender quotas.

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<sup>1</sup> According to Krooks (2007) more than one hundred countries are, at least, discussing the use of some form of quotas to increase the selection of female candidates to political office. America Latina case is remarkable, with the introduction of gender quotas in eleven countries, though with great differences among them (Htun, 2005).

<sup>2</sup> Examining the context of quota's approval and the ratified text, it is fair to select legislation design as the major responsible for the poor outcome as the law is written in such a way that it becomes non-enforceable. It allowed parties not to follow quotas without suffering any type of sanction, what explains the low contestation of the approval of the legislation, indicating that quotas have been passed merely as a symbolic gesture (Araújo, 2001).

Existing analyses are mainly on quota's impact and comparisons with other countries but, more recently, interest shifted to the relation between a range of variables and electoral results, according to gender. District magnitude is reported as having a negative impact on women's election, increases in the percentage of female candidates appear positively related to female's electoral results, and socio-economic indicators are found to have a low, and sometimes even negative, impact on women's election (Alves and Cavenaghi, 2005; Araújo and Alves, 2007). Since the legislative quota falls on the percentage of nominated, not elected, and given that the Brazilian electoral rules would appear to facilitate women's inclusion (due to the large spectrum of candidates allowed), we are led to believe strategic reasoning is an important factor behind nomination. Considering that obstacles for women's nomination may be quite different from those of their election, we have mentally separated the process in three main stages: recruitment (or pre-nomination status); inclusion on party lists; and electoral results<sup>3</sup>. In this work project our interest is in the nomination stage, but all stages will be considered due to their interdependence. Results show that this separation was correct as some socio-economic variables that had a negative influence on elections have actually had a positive impact on nomination.

Until now we have seen why quota failed to succeed and have set as our work project goal to understand what causes variation in women's nomination across municipalities and parties. Since variables influencing such variation come from distinct areas<sup>4</sup> and affect women's nomination through different channels - namely women's qualifications and

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<sup>3</sup> Inspired by Rule, 1981.

<sup>4</sup> A common ground is to have the vast universe of factors affecting women's representation divided in at least three categories: cultural, socio-economic and political (within the political category, sub-divisions like electoral system or parties' political culture are used). However, the variety of factors determining women's representation within these categories is so abundant that we are forced to discuss just briefly some issues, recognizing that behind each of them there are quite interesting ramifications and that some other aspects are left unmentioned.

willingness to stand for elections, party support, and electorate openness - we have divided our work in the following steps. First, we will discuss current know-how on electoral systems and women's representation and discuss the Brazilian case, particularly the "open-list" consequences since this factor marks our work structure. Moving to the analysis per se, we assume that beyond political, cultural and socio-economic determinants, nominations will also be influenced by expectations parties have on electoral outcomes. With that in mind, we begin with an introduction and posterior analysis of the influence of the first set of variables in women's nomination. Then, we study how different proportions of women on parties' lists affects electoral results, calculating optimal proportions of female candidates. This permits us to understand what the demand was, subject to the specific candidate supply. As a final step, we compare the optimal values with the averages observed for both years. Using information from these three analyses we draw our conclusions and suggest new lines of work.

## **II. Electoral system and women's representation**

In Brazil, the proportional system is used in city council elections<sup>5</sup>. In spite of the system itself being constant for the whole country, variations across municipalities can be captured by considering changes in the totality of seats (district magnitude). A higher number of seats should be more conducive to women's representation (Matland and Brown, 1992; Rule, 1987), though some scholars find less consistent relations (Matland, 1993; Schwindt-Bayer, 2005). There are two types of justifications for these differentiated results. One considers that what is important is not the number of seats in the municipality but the ones

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<sup>5</sup> It is well reported that multi-member proportional representation (PR) system is more favorable to women's election than single-member district majority and plurality system. See for example: Matland and Brown, 1992; Norris, 1985, 1996; Rule, 1981, 1987; Matland, 1998; McAllister and Studlar, 2002; Paxton et al., 2010.

the party is expecting to win, as the gender dispute is internal.<sup>6</sup> The other set of explanations is related with changes brought by higher district magnitudes that can be prejudicial to women<sup>7</sup>, such as changes in recruitment process (Schmidt, 2003). If costs of campaigning increase with district magnitude, women may be disproportionately affected given the uneven distribution of income across genders and lack of public financing for campaigns in Brazil<sup>8</sup>.

Moving to the effects of the “open-list”, it is debatable whether this system is more or less favorable to women’s representation. This will depend on a range of variables, and evidence holds for both cases, but the bottom line idea is: if women’s biggest obstacle is encountered in the ballots, then the “open-list” system is worse; if the biggest obstacle is found in the relation with parties, the “open-list” will help women (Matland, 1998). Nonetheless, such obstacles can still be overcome in the “closed-list” case if the legislation design is appropriate and mandatory, namely through the introduction of placement mandates like the “zipper quota” where men and women need to be alternated in list positions or by relating quota to *winnable slots*<sup>9</sup>. When quotas are voluntary, or penalties are not sufficiently high, uncovering party’s motivation is of utmost importance, both for closed or “open-list” systems.

### **III. Brazilian city council elections**

In city council elections, the district magnitude varies according to population, ranging from 9 to 55 seats. The number of candidates that parties are allowed to present

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<sup>6</sup> This variable, although related to district magnitude, also depends on factors such as the distribution of the vote and the rules for allocating seats among parties (Schmidt, 2003)

<sup>7</sup> Davidson-Schmich (2006) finds a negative relation between party’s adherence to quota and the number of citizens per direct mandate, supporting the idea that women may have increased difficulties in larger districts.

<sup>8</sup> The uneven distribution of income in Brazil is also mentioned in the following consulted papers: Araújo e Alves, 2007; Lima, 2009.

<sup>9</sup> For a good example of changes brought by altering legislation, we recommend the Argentina and Costa Rica cases (Jones, 1998, 2004).

corresponds to 150% of the seats<sup>10</sup>. Quota legislation stipulates that 30% of those places should either be filled by women or left in blank<sup>11</sup>. The “open-list” characteristic means that the list of candidates presented to voters is completely unordered. At the election stage, each voter has one vote and votes either for one specific candidate or for the party itself. The totality of votes for the party and candidates of the party is then used to decide allocation of seats among parties, and those seats are given to the candidates who have received more votes within the respective party (coalition).<sup>12</sup>

#### **IV. Strategy behind nomination?**

From the process described, two things are worthy of mention: the large range of candidates allowed and the lack of power parties have over which candidates are elected. The first factor may facilitate the nomination but, as parties lose control over who is elected, list composition must anticipate the possible outcomes of intra-party competition.<sup>13</sup>

It is our assumption that parties have at least two major interests: one is to maximize electoral results, meaning that more support will be given to women candidates if they are perceived to be a good “bet”; other is the recognition of vested interests and limited positions to offer, what creates a certain rivalry between genders, as having more women nominated/elected usually means taking seats away from male incumbents. In the Brazilian case it is not plausible that women are not nominated in order to reserve places for men on the lists. It would apparently even be positive to include the maximum candidates allowed,

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<sup>10</sup> 200% in a coalition. In both cases, if the number of seats for deputy chamber is equal or lower than 20, the maximum percentage allowed increases by 50 pp. We note that these values were lower when the 20% quota was introduced in 1995 but, in 1997, were increased, together with the passage of quota percentage to 30%.

<sup>11</sup> To be more precise, legislation stipulates that, of the maximum number of candidates allowed, each party should reserve between 30% and 70% for each gender.

<sup>12</sup> The Brazilian electoral system rules create considerable disproportionality, especially due to the rules of distribution of seats in coalitions. The way the blank ballot is accounted and the lack of perfect relation between proportion of citizens and proportion of seats further contribute to the high observed disproportionality (Tafner, 1996; Nicolau and Schmitt, 1995).

<sup>13</sup> Note that, on average, only one candidate from each party is elected. This means that the competition for the seat is high. Furthermore, the open list system increases the competition within the party.

at least to get more votes, which is not usually done. We assume that gatekeepers<sup>14</sup> measure the trade-offs from having more candidates, and more votes, with the possibility of reducing some candidate's probability of success or the perceived quality of the party list, decreasing the number of votes going to the party.<sup>15</sup>

The lack of control over elected candidates adds more uncertainty to which factors are making women more or less likely to be nominated. First, we do not know whether voters favour men over women, the reverse, or if they do not care about candidates' gender at all. But, even if they do care, how do those votes interact with changes in female candidates? At a first sight, it seems evident that when voters prefer female candidates their provision should increase, but, accounting for other interests, the situation may change. Fréchette et al. (2007) present a model where, if men have better chances when competing against women, they may be willing to have some female candidates in their party to improve their own electoral chances. This means we not only need to assess how voters react to female candidates but also how parties respond to this reaction.

Which brings us to the next question: how do voters feel about candidate's gender? It is commonly assumed that women face a higher challenge at the ballots simply due to their gender. There are indeed authors that find evidence of such bias when controlling for some characteristics such as incumbency, age, education and other biographical information (Fréchette et al, 2007). For others, women appear to be popular among voters (Schmidt, 2003). Dolan (2004) concludes that candidate gender does not affect all voters the same

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<sup>14</sup> Party member responsible for the candidates selection.

<sup>15</sup> This would be similar to the *corporate cannibalism* when introducing products. New products can increase market share but can also compete with other incumbent products of the same company. Therefore, only when marginal benefits exceed marginal costs should these be launched. We did not find a study on these trade-offs or mechanism behind list elaboration, although Nicolau (2006), while discussing the electoral "open-list" system in Brazil, does raise the following question: are parties not using all seats available as a strategy or due to unavailability of citizens to become candidates?



way, but instead depends on candidates', as well as electorate, characteristics. This motivates us to relate women's nomination probability to characteristics of the municipality.

## **V. Data and Methodology**

Our approach follows four steps: first, the percentage of female candidates is regressed on political, cultural and socio-economic variables; second, introducing the strategic factor, the electoral results are regressed on the percentage of female nominated (plus the previous explanatory variables as controls); we then calculate the optimal points; and finally compare them to observed averages.

The analysis is based on data from the 2000 and 2004 Brazilian city council elections, plus on characteristics of the municipalities and parties for those years. Specifically, each observation corresponds to party  $x$  in municipality  $n$  at year  $t$  (103,040 observations<sup>16</sup>). As explanatory variables we use: district magnitude; an indicator of leftist ideology; religion; and socio-economic variables. However, as unobserved effects are expected - namely cultural differences across regions and differences across parties' practices<sup>17</sup> - we include year, party and region dummies to capture those unobserved effects (reflected in the dummies coefficients). With this specification we can use OLS. Description of how each variable was collected can be found in Appendix A.

Leftist ideology is included since leftist parties are sometimes seen as more favourable to women's representation (Caul, 2001) and there is evidence of that relation in Brazilian federal elections (Araújo and Alves, 2007). Religion is measured using the percentage of population that is Catholic and Protestant, inspired by Davidson-Schmich (2006) who finds

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<sup>16</sup> There are missing values on some variables regarding municipality characteristics.

<sup>17</sup> Some examples are: recruitment processes, support given to women on campaigns, women well positioned in the party, specific strategies followed by the party; elites' power; etc. (Caul, 2001).

Catholicism to have a negative impact on party's adherence to quotas, which is consistent with previous studies<sup>18</sup>. Regarding socio-economic indicators, though their importance is well accepted, there are no clear guidelines on which should be used. We have included the following variables:

- *GDP pc*: under the hypothesis that the higher the economic status of the municipality, the higher women's representation should be (Rule, 1981; Matland, 1998);
- *Average schooling per gender*: given that results show that measures of education do influence women's representation (Inglehart and Norris, 2003; Norris, 1985; Rule, 1981, 1987; Schwindt-Bayer, 2005), despite showing less consistent results than measures of women in the workforce.
- *Percentage of women in the municipality*: can either reflect a higher pool of candidates (in a very raw sense given that qualifications are not considered) or be used by the parties as an instrument of decision on the number of women that should be included on lists (under the popular belief that women may be less reluctant to vote for female candidates). Note that we are not advocating that this pattern does exist. On the contrary, evidence points to no specific support from women towards female candidates (Sigelman and Welch, 1984; Darcy and Schramm, 1977) - at least between white voters and candidates<sup>19</sup>. Miguel and Queiroz (2006) find a negative relation between this variable and the percentage of elected women in Brazil.

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<sup>18</sup> Catholic societies are seen as being less supportive of the "modern" role of women and their participation in public life whereas Protestant societies are regarded as "more open to gender equality in government", Schwindt-Bayer (2005).

<sup>19</sup> Discussion on how support to candidates according to gender may also be affected due to their race or ethnics may in fact be important for Brazil, as evidences signal that race may create a stronger "bond" between electorate and candidates than gender (Sigelman and Welch, 1984), but is out of the scope of this work project.

- *Measures of state of (and public expenditure in) health and education:* are included for two different reasons<sup>20</sup>. One is to test the hypothesis that women may become more desirable for voters when municipality characteristics require more investment in “feminine specialties”, namely education and health (Sapiro, 1982; Khan, 1996; Finamore and Carvalho, 2006). Specifically, women’s recruitment is expected to increase as expenditures on social welfare issues, such as education and health, increase (Welch, 1978; Rule, 1981), and we hypothesize that, when indicators from these areas are worse, therefore requiring larger investments, demand for women will also increase. The other reason is that better socio-economic indicators are usually associated with increases in women’s representation, as previously discussed. The first hypothesis is related with the demand whereas the second should better reflect the supply side.

*A. Explaining the variance in the percentage of candidates that are women*

Firstly, the aforementioned set of variables is used on the following linear regressions<sup>21</sup>:

(1)  $Candfem = \beta_0 + \sum_{k=1}^{46} \beta_k z_k$ , where  $z$  are the explanatory variables and  $Candfem$  is the percentage of female candidates on party list

(2)  $I_1 = \beta_0 + \sum_{k=1}^{46} \beta_k z_k$ , where  $z$  are the explanatory variables and  $I_1=1$  if  $Candfem>0$  (Women Representation Indicator)

(3)  $I_2 = \beta_0 + \sum_{k=1}^{46} \beta_k z_k$ , where  $z$  are the explanatory variables and  $I_2=1$  if  $Candfem>30\%$  (Quota Indicator)

<sup>20</sup> We recognize some problems in this approach, particularly measurement errors as they will not reflect precisely the state of health and education of the municipalities.

<sup>21</sup> We assume that these variables can impact women’s nomination through three interdependent channels – women’s decision to become candidates, parties’ openness to women and electorate reaction to female candidates – but will assess only their aggregate impact.

Results (Table 1) show that district magnitude has a positive impact on the change from zero to at least one woman on a party's list but a negative impact on increases in proportion of women and on quota's observance. Since our dependent variable is a proportion, in which the denominator is allowed to increase according to the district magnitude, we ran the same regression but with the number of female candidates as the dependent variable (Table B-3 in Appendix B). In that regression the impact of district magnitude was positive, so on average, the number of female candidates increases with district magnitude, but diminishes proportionally.

TABLE 1—OLS REGRESSION RESULTS (1)

Independent Variables	Women Representation <sup>a</sup>		Percentage of Female Candidates		Quota <sup>b</sup>	
	2000	2004	2000	2004	2000	2004
District Magnitude	0.0111***	0.0089***	-0.1022***	-0.1533***	-0.0050***	-0.0064***
GDP pc	0.0013***	0.0019***	0.0425**	0.0843***	0.0008*	0.0013**
Average Schooling (M)	ns	ns	ns	ns	ns	ns
Average Schooling (F)	ns	ns	ns	ns	ns	ns
Percentage of Women	0.0109***	0.0197***	0.5320***	0.5579***	0.0070***	0.0062**
Percentage of Catholics	-0.0034***	-0.0022***	-0.1073***	ns	-0.0012**	-0.0012**
Percentage of Protestants	ns	ns	-0.0771*	ns	ns	ns
Student per teacher	0.0031***	0.0057***	0.0662***	0.0975***	ns	0.0018***
Vaccine pc	ns	ns	0.8884*	ns	0.0230***	ns
Infant Mortality pc	ns	-43.5165***	-880*	ns	-18.265*	ns
Expenditure in Education	ns	ns	0.0007*	ns	0.0000**	ns
Expenditure in Health pc	ns	ns	0.0007*	ns	-0.0000*	ns
Ideology – Left	-0.3186***	ns	ns	-4.4138**	ns	ns
Region = Northeast	-0.0612***	-0.0424***	ns	ns	ns	ns
Region = North	0.0254*	0.0283*	ns	ns	ns	0.0266*
Region = Southeast	0.0315**	0.0276**	ns	ns	-0.0237**	ns
Region = South	ns	-0.0317**	-1.1605*	-1.2889*	-0.0283**	ns
Constant	0.0230	-0.5268***	3.1135	-0.8543	0.0704	0.1190
Number of Observations	37798	39894	37798	39894	37798	39894
Adjusted R-Squared	0.0556	0.0493	0.0068	0.0043	0.0098	0.0040

Notes: Results for party dummies coefficients and for the same regressions without party dummies can be found in Appendix B, as well as results with the standard errors.

Source: Sources of used variables are included in Appendix A.

<sup>a</sup> Indicator variable equal to one when percentage of female candidates is higher than zero.

<sup>b</sup> Indicator variable equal to one when percentage of female candidates is higher than thirty, the established by quota.

\*\*\* Significant at the 0.1 percent level, \*\* Significant at the 1 percent level, \* Significant at the 5 percent level

Controlling for parties specific effects, left ideology parties are actually, on average, less likely to nominate women (when significant). Catholicism is associated with a lower

proportion of nominated women, but municipalities with a higher percentage of Protestants do not significantly impact women's inclusion.

The hypothesis of increases in demand for women when expenditures in health and education are higher fails to be proven, but noteworthy is the importance that the measures of state of health and education have on women's nomination. Whether this is due to previous experiences with women in command (e.g. as mayors) or due to the plausible relation between society's development and women's position, is out of the scope of this research, however, as GDP pc has also a positive impact, the last hypothesis seems to hold. Anyhow, we do highlight the increased importance of this sort of variable in explaining continuous changes in proportion of women nominated, rather than in explaining discrete changes on specific barriers<sup>22</sup>. The same holds for the percentage of women in the municipality which has a (surprisingly) high impact on our main dependent variable.

Dummies controlling differences among regions that are not captured by our variables are far more relevant when it comes to explaining the non-inclusion of women than in explaining variations in the percentage of included candidates, where only the South Region has a significant impact (negative) on women's nomination.

Although the model is significant we should highlight its drawbacks. First of all, some explanatory variables sign varies when using non-linear models, which may be caused by non-linear effects of our variables that change particularly in the tails of the distribution<sup>23</sup>. Secondly, and more important, is the low coefficient of determination, indicating that this

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<sup>22</sup> It is interesting to see that, in the forthcoming analysis, where these variables are used as controls, their sign tends to change, in the directions pointed by existing studies where socio-economic variables have a negative impact on the proportion of elected female.

<sup>23</sup> As an example, district magnitude has a positive impact in logit models, except when quota indicator is the dependent variable. In our linear model we have seen that the impact of district magnitude is positive in explaining having at least one woman and negative afterwards. This difference in the effect occurs at the tails of the distribution.

model does not provide a good understanding of what is driving the choice of female candidates<sup>24</sup>. Still, when we combine the results of this analysis with the ones from the following analysis on the relation between female candidates and electoral results, we are able to understand where the problem is. We will see that though pure parity is not optimal, supply of candidates could, on average, increase with benefits for the party and, sometimes, even with benefits for male candidates. This suggests that the problem lies in the supply side, which is consistent with our model's explanatory power, since we lack variables capturing variations in the supply side. Additionally, the variables included in the model that do explain variations in nomination reflect, although indirectly, variations in the supply side. This conclusion is reinforced by the fact that those variables are either not relevant or have different signs in explaining electoral results.

#### *B. Candidate's gender and electoral results - Optimal list composition by gender*

The study of electorate reaction to female candidates on parties' lists is done using the previous set of variables as controls. Three dependent variables – Party Success (seats won by the party over district magnitude); Elected Males (the percentage of party elected that are male); and Elected Females (the percentage of party elected that are female) – are regressed on female candidates (%) and its square (plus controls). Results are first discussed for the overall data, and then presented according to regions and ideologies, separated by election years to capture evolution. Knowing how supply of women candidates was absorbed by the electorate enables us to assess the demand according to

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<sup>24</sup> It is however in line with similar analysis on the Brazilian elections from Araújo and Alves, 2007. Additionally, when we regress the number of female candidates, instead of the proportion, on the same set of variables, the coefficient of determination is 18.95%.

gender<sup>25</sup>, and the optimal amount that should be supplied. These will be revealed optima, since we do not know the true functions. We find that the percentage of female candidates and its square are both significant, suggesting that the gender composition of the list is not irrelevant. Initial increases of women are always positive.

TABLE 2—OLS REGRESSION RESULTS (2)

Independent variables	Elected Males		Elected Females		Party Success	
	2000	2004	2000	2004	2000	2004
Percentage of Female Candidates	0.4690***	0.3689***	0.5219***	0.4450***	0.2674***	0.2160***
(Percentage of Female Candidates) <sup>1/2</sup>	-0.0104***	-0.0084***	-0.0038***	-0.0029***	-0.0037***	-0.0028***
District Magnitude	0.4732***	0.6669***	ns	0.1072**	-0.3134***	-0.0983***
GDP pc	-0.1141***	-0.1430***	-0.0450**	ns	-0.0221*	-0.0214*
Average Schooling (M)	ns	ns	ns	-2.9894*	ns	-1.5012*
Average Schooling (F)	ns	ns	ns	3.0424*	ns	1.6847*
Percentage of Women	-0.9667***	-1.4002***	-0.2514**	-0.6232***	-0.3499***	-0.4280***
Percentage of Catholics	0.2326***	0.1562***	0.0436*	0.0599**	0.0971***	0.0726***
Percentage of Protestants	ns	ns	ns	ns	ns	ns
Student per teacher	-0.1733***	-0.3317***	-0.0481**	-0.0468*	-0.1160***	-0.1240***
Vaccine pc	ns	ns	ns	ns	-0.6470***	-0.9414***
Infant Mortality pc	2600***	2900**	ns	1400**	1300***	1300***
Expenditure in Education pc	ns	ns	ns	ns	ns	ns
Expenditure in Health pc	ns	ns	ns	ns	ns	ns
Ideology – Left	14.5535***	13.2106***	ns	ns	ns	1.17218**
Region = Northeast	2.9076**	2.6619*	ns	1.0562*	1.4464***	0.9157***
Region = North	ns	ns	ns	ns	-0.6891*	ns
Region = Southeast	ns	ns	-10897*	-1.5433***	-0.8327***	-0.6525**
Region = South	ns	2.8733**	ns	ns	ns	0.7949**
Constant	29.3345***	72.9934***	6.0576	22.0794***	15.6791***	20.2707***
Observations	37798	39894	37798	39894	37798	39894
Adjusted R2	0.1832	0.1555	0.0913	0.0899	0.2529	0.2007

Notes: Party dummies are used as controls but their coefficient is not shown in the table (see Appendix B).

Source: Data sources can be found in Appendix A as well as results without controls in Appendix B.

\*\*\* Significant at the 0.1 percent level, \*\* Significant at the 1 percent level, \* Significant at the 5 percent level

We use the regression coefficients as estimates in the following equations, to derive optimal points:

<sup>25</sup> This demand is subject to the specific candidates in the data and cannot therefore be extrapolated to more general results regarding gender without some care.

$$(4) Y = \beta_0 + \beta_1 candfem + \beta_2 candfem^2 + \sum_{k=3}^{46} \beta_k z_k, \text{ where } z \text{ are the controls}$$

$$(5) \frac{dY}{dcandfem^*} = 0 \leftrightarrow \beta_1 - 2\beta_2 candfem^* = 0 \leftrightarrow candfem^* = x \%$$

Using our aggregate data, we find that having an equal amount of female and male candidates is not beneficial for the party, but the percentage of candidates that maximizes a party's electoral result (37.3%) is higher than the percentage required by quota legislation (30%). As for women's electoral success, it increases until around ¾ of the list are female. After that, increases are no longer beneficial, given that the party loses seats. Male candidates, as previously seen, do gain from having some women among the competition, but no more than around 22.5%. To sum up, having at least one woman on the list is apparently a win-win situation but, after that increases in the proportion of female candidates will eventually hinder party, and especially male candidate's results.

Most of the impact of control variables on elected females appears to come from the effect these variables have on seats won by the party (e.g. due to re-distribution of seats if they increase competition) and are contrary to the impact found on nomination. This indicates that the impact on nomination comes from the supply side, and is not necessarily related to electoral results. Average schooling of females in the municipality is significant for the first time, having a positive impact on the proportion of seats won by the party.

Separating optimal points by election year (figure 1 and table 3) we see that the demand for women is increasing, so parties should have a higher proportion of women on their lists. Male candidates would, however, desire a smaller number of women than on the previous election showing that when it comes to gender competition, women are gaining territory. Increasing the supply of female candidates is not hindering women's electoral success.



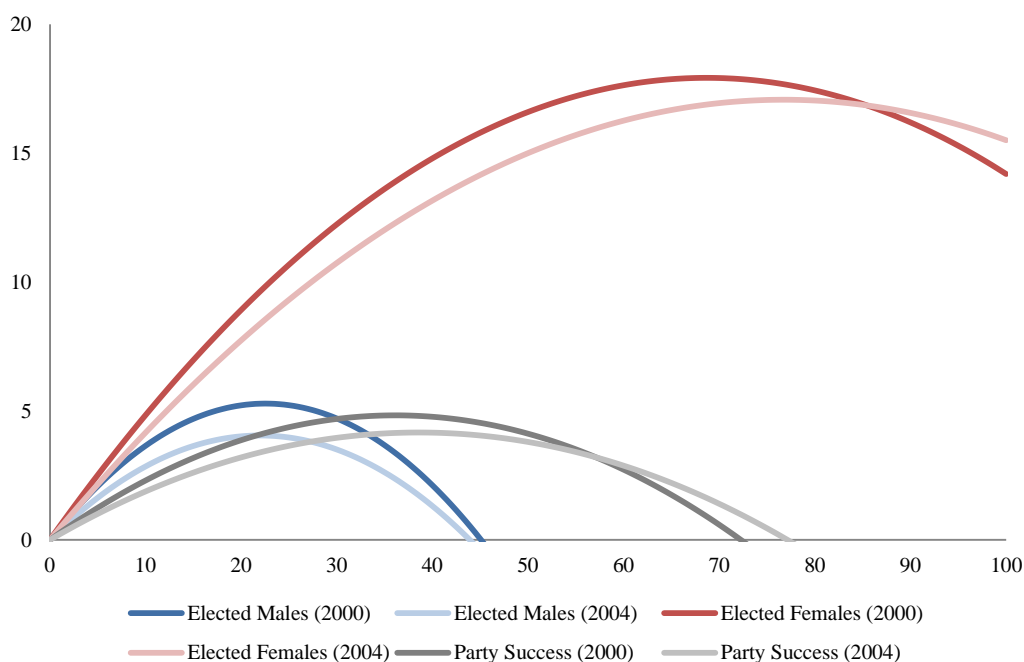


FIGURE 1. FEMALE CANDIDATES' IMPACT ON ELECTORAL RESULTS

Notes: The graphic displays the functions to maximize, separated by election years. We are interested in which percentage of female candidates maximizes electoral results, not on these results per se, and so present the graphic starting at any point  $c$  (zero in the vertical axis).

Sources: Data sources can be found in Appendix A.

#### *D. Optimal list composition by gender - How far are we?*

When we add information on the actual average of female candidates (%) for both years we are able to understand if, on average, supply of candidates is matching demand, whose function is being optimized and if we are or not approaching optimal points.

As we have seen, in terms of electoral results, it is a win-win situation to have at least one woman on a party's list. Still, the percentage of observations without any woman has increased for the second election (see figure 2). Strategic reasoning would not back up such an increase, and we conclude that it must be a supply problem. Either the restriction comes from lack of qualified women (or lack of qualified women willing to run) or from parties' restriction in supply (e.g., due to great bias from gatekeepers).

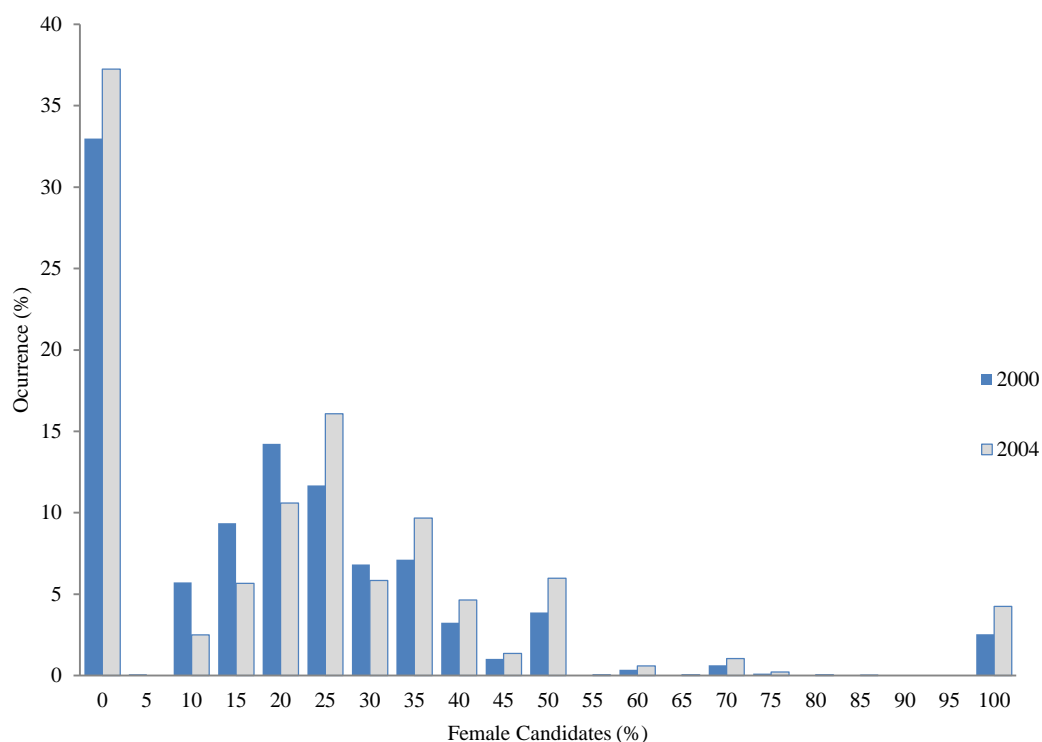


FIGURE 2. EVOLUTION OF FEMALE CANDIDATES' PERCENTAGE ON LISTS

Sources: Data sources description can be found in Appendix A.

TABLE 3— PARTIAL AND AGGREGATE OPTIMAL VALUES AND REAL VALUES OF FEMALE CANDIDATES' PERCENTAGE ON LISTS, BY YEAR

	2000				2004			
	Male Optimum	Female Optimum	Party Optimum	Observed Average	Male Optimum	Female Optimum	Party Optimum	Observed Average
<b>Region</b>								
Centre	21.66	59.98	36.47	19.22	21.73	72.24	37.22	21.18
Northeast	16.10	75.12	36.00	18.40	22.18	86.61	38.37	21.32
North	24.52	62.61	38.55	20.09	13.05	68.15	34.93	21.81
Southeast	26.29	60.37	35.71	18.30	25.96	68.18	37.28	21.53
South	25.71	73.91	38.02	16.92	16.78	69.56	38.21	19.34
<b>Ideology</b>								
Centre	17.21	73.88	35.13	18.02	18.19	83.34	36.96	20.57
Undifferentiated	30.85	61.97	36.86	20.57	26.54	81.88	39.25	23.22
Left	27.45	67.77	36.37	18.41	25.12	80.67	37.76	20.85
Right	19.26	75.41	34.74	18.08	17.56	81.55	36.08	20.68
<b>Non-segmented</b>	22.55	68.67	36.14	18.33	21.96	76.72	38.57	21.10

Notes: Observed average is the actual average of the observations. All values are percentages.

Source: Data sources description can be found in Appendix A.

Although the optimum for the party in general is changing (growth rate=6.72%) as well as male candidates optimum (growth rate= -2.4%), current averages are increasing at a faster

rate ( $g=15.17\%$ ) and convergence towards male optimum seems to be in place. Major drawbacks are parties/municipalities presenting zero female candidates which drastically pull the average down<sup>26</sup>. Contrary to what was thought, the growth rate of female candidates in Brazil was quite high once we excluded observations with no women at all.

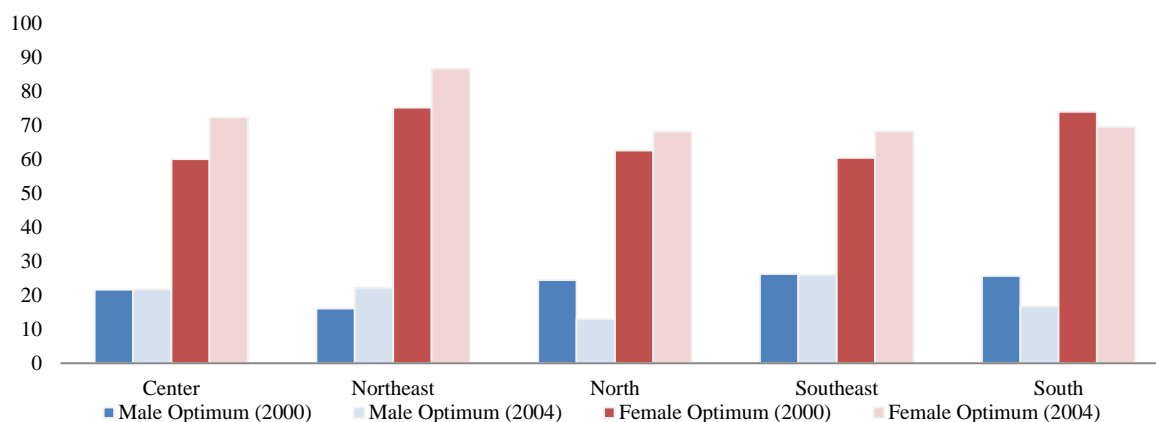


FIGURE 3. OPTIMAL VALUES PER GENDER (PER YEAR & PER REGION)

Sources: Optimal values from table 3.

Applying the same methodology according to regions (table 3 and figure 3) we still see that the percentage of females on parties' lists is, on average, approaching the male optimum. It would be important to understand why the party optimum decreased in some cases, as it may be a reflex of the perceived quality of the candidates. Regarding ideology, though differences were mitigated between elections, right-wing parties most beneficial proportion of women is below average, suggesting that either parties with such ideology present female candidates that are less appealing to the electorate or that the right-wing electorate is less open to women on parties' lists. Variation of party optimum across regions and ideologies is much lower than that of female and male optima. Thus, we are more confident in the optimal value for the party, than on how those seats will be distributed among genders.

<sup>26</sup> Averages are 18.32% and 21.10%, for 2000 and 2004 (growth rate is 15.17%). Averages excluding cases where there are no female candidates are 27.34% and 33.63% (growth rate is 23.01%).

Electoral results are undoubtedly affected by a variety of factors other than the percentage of candidates presented, some of them were controlled, others not, explaining the disparities across observations. Nonetheless, we can observe in Figure 2 that, between the two elections, there was an increase in observations close to male candidates' optimum and party's optimum, indicating that those who compose the list do take into account incumbents and party's goals.

## **VI. Conclusion**

From our work we can draw some conclusions for policy development. First of all, when attempting to work on factors aiming at an increase in women's representation, the current situation of women should be clearly understood. Different strategies must be drawn depending on whether the question at hand is how to have at least one woman or if it is to increase the current proportion. Whereas in the first case strong barriers exist, which appear to be caused mainly by problems in the supply, either due to restrictions from the parties or to lack of qualified women willing to run for elections, in the second, parties seem to have taken into consideration expectations regarding women's electoral success and respond positively to them. At the same time, the first barrier appears to be highly dependent on regional characteristics and parties' ideologies, whereas in the second case it is more dependent on religion, socio-economic development, district magnitude and demography. New studies should focus on uncovering through which channels and why these socio-economic determinants are affecting women's nomination in Brazil, and action should be focused directly on those specific factors. At the same time, as our work shows, obstacles in nomination are different from those in election. We believe that the intersection between these two should be considered when developing policies.

Evidence shows that there is still room for improvement in women's representation without harm for the parties, but at some point with prejudice for male candidates what, in cases where male incumbents are powerful enough, can lead to a sub-optimal amount of women candidates. It seems counter-intuitive that, on average, quota is not being met and that at the same time optimum levels for the party are above 30%. However, once we counted only the cases with representation, growth rates were high and average values were above quota.

Interesting directions would be to include variables capturing variations in the supply side, either in women's qualifications for political offices<sup>27</sup> or in women's strength and position within the parties. Information on existence and strength of women's movements across regions would also be a plus, as would be remuneration gaps according to gender and measures of women in the workforce. Since city councils' remuneration is not equal among municipalities, we could think of models where differences in office remuneration, together with remuneration in workforce according to gender, could be related to increases in gender competition for political offices. Additionally, we feel that particularly in the Brazilian case, corruption could be introduced as some studies indicate that there may be a correlation between gender and corruption (Azfar, 2001). Other possible interaction would be to introduce the race factor, as it may bring different dynamics (Welch, 1984).

As a last note, apparently as parties would be interested in having more than the 30% female candidates established by quota, care should be taken when reinforcing legislation in that direction, for the following reasons: i) If a party in a given municipality is presenting

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<sup>27</sup> Having in mind that recruitment channels appear to be different for women (Davidson-Schmich, 2006). Having worked as a city council assessor may be a good predictor of nomination for the Brazilian case (Kuschnir, 1995, Lopez, 2004). Women on powerful associations are also likely to influence their nomination and election. Having a relative in a political office may also be a positive influence in nominations (Lopez, 2004; Bezerra, 1995).

a lower percentage of candidates due to a lower than average openness of the electorate, then increasing the candidates will probably not result in positive gains for women's election; ii) If the reason for having a lower percentage is lack of qualified women, then presenting weaker candidates may result in a negative reaction in electoral terms. In the last case, legislation can work in the long term if it pushes parties to invest in recruitment and preparation of female militants, but there is the danger associated with a reduction in electorate demand due to the initial decrease in quality. Only when male interests are dominating the nomination decision would strong legislation on quota prove fruitful.

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A Work Project, presented as part of the requirements for the Award of a Master's Degree  
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“Nominations across Gender: An Empirical Investigation of Brazilian Municipal Elections”

Mafalda Fontes Molarinho Carmo, nº. 420

## **APPENDIX**

A Project carried out under the supervision of:

Professor Doutor José Tavares

January, 2012

## *Appendix A, Data Sources*

*A. Election characteristics:* Collected from Tribunal Superior Eleitoral (TSE)

*B. Municipality characteristics:*

*GDP per capita; Average schooling for individuals above eighteen years, according to gender; Percentage of women in the municipality; Percentage of Catholics in the municipality; Percentage of Protestants in the municipality:* Collected from Censos (Census). Since data is released every 10 years, we used the value of 2000 also for 2004 elections.

*Population (used to transform variables in per capita terms):* Collected from Censos for year 2000. For 2004, population censuses from 2007 were used to calculate constant population growth between 2000 and 2007, which were then used to estimate population in 2004.

*Expenditure in Health; Expenditure in Education:* Collected from Tesouro Nacional (FINBRA)

*Free vaccines; Infant mortality rate:* Collected from DATASUS (Ministry of Health)

*Number of students per municipality; Number of teachers per municipality:* Collected from Censos Escolares – INEP (Ministry of Education)

## Appendix B, Regression Results

(1) Table B-1 , Linear regression from section V-A with party coefficients and standard errors

Independent Variables	Women Representation	Percentage of Female Candidates	Quota
Student per teacher	0.0045 (0.0003)	0.0778 (0.0146)	0.0010 (0.0003)
GDP per capita	0.0016 (0.0003)	0.0648 (0.0132)	0.0011 (0.0003)
Average Schooling – male	0.0221 (0.0217)	-0.638 (1.0355)	-0.0033 (0.0192)
Average Schooling – female	-0.0159 (0.0209)	0.774 (0.9975)	0.0089 (0.0189)
Percentage of Women in Municipality	0.0167 (0.0015)	0.5677 (0.0741)	0.0070 (0.0014)
Percentage of Catholics in Municipality	-0.0028 (0.0003)	-0.0744 (0.0146)	-0.0012 (0.0003)
Percentage of Protestants in Municipality	-0.0001 (0.0005)	-0.0299 (0.0241)	-0.0006 (0.0005)
District Magnitude	0.0091 (0.0005)	-0.1267 (0.0226)	-0.0056 (0.0005)
Vaccine pc	0.0084 (0.0058)	0.6385 (0.2716)	0.0164 (0.0052)
Infant Mortality pc	-32.8333 (6.9713)	-874.4 (324.8058)	-15.2866 (5.8818)
Expenditure in Education per capita	0.0000 (0.000)	0.0001 (0.0001)	0.0000 (0.0000)
Expenditure in Health per capita	-0.0000 (0.0000)	-0.0001 (0.0001)	-0.0000 (0.0000)
Year = 2004	-0.0042 (0.0040)	2.7841 (0.1873)	0.0818 (0.0036)
Ideology – Left	-0.2240 (0.0404)	-5.3545 (2.3963)	-0.0240 (0.0358)
PC do B	-0.1110 (0.0376)	2.6190 (2.2385)	0.0062 (0.0332)
PCB	omitted	omitted	omitted
PCO	-0.0651 (0.0779)	3.1926 (4.5721)	0.1574 (0.0764)
PDT	0.3620 (0.0364)	1.7002 (2.1346)	-0.0374 (0.0320)
PFL	0.2382 (0.0197)	-2.6377 (1.1656)	-0.0643 (0.0180)
PGT	-0.0608 (0.0395)	-1.9928 (2.2071)	0.0097 (0.0353)
PHS	0.0519 (0.0236)	-2.4893 (1.3702)	-0.0300 (0.0215)
PL	0.1493 (0.0200)	-3.6224 (1.1815)	-0.0682 (0.0183)
PMDB	0.2604 (0.0196)	-2.6396 (1.1625)	-0.0728 (0.0179)
PMN	0.3059	2.6516	0.0107

	(0.0379)	2.2050	0.0334
PP	0.1716	-2.8768	-0.0588
	(0.0199)	1.1754	0.0181
PPS	0.3696	1.9865	-0.0272
	(0.0365)	2.1357	0.0321
PRN	-0.0129	0.0777	0.0029
	(0.0405)	2.3689	0.0352
PRONA	0.0754	2.1854	0.0348
	(0.0289)	1.7727	0.0276
PRP	0.0623	-2.6070	-0.0378
	(0.0225)	1.3088	0.0204
PRTB	0.0183	-1.9437	-0.0076
	(0.0243)	1.4238	0.0223
PSB	0.3590	2.0274	-0.0359
	(0.0366)	2.1413	0.0322
PSC	0.0760	-3.2965	-0.0512
	(0.0215)	1.2539	0.0195
PSD	0.1623	-1.1750	-0.0211
	(0.0232)	1.3028	0.0211
PSDB	0.2298	-2.7179	-0.0611
	(0.0197)	1.1665	0.0180
PSDC	0.0873	-1.1450	-0.0340
	(0.0231)	1.3592	0.0212
PSL	0.0854	-1.4811	-0.0313
	(0.0223)	1.3141	0.0203
PST	0.0792	-1.3456	-0.0021
	(0.0265)	1.4859	0.0242
PSTU	-0.1535	-1.9951	0.0815
	(0.0417)	2.4279	0.0409
PT	0.4204	2.9654	-0.0047
	(0.0363)	2.1277	0.0319
PT DO B	0.0754	-0.5740	-0.0076
	(0.0240)	1.4222	0.0222
PTB	0.1829	-2.6049	-0.0578
	(0.0198)	1.1762	0.0181
PTC	0.0745	-1.1137	-0.0133
	(0.0271)	1.6123	0.0253
PTN	0.0294	-1.4659	-0.0232
	(0.0247)	1.4565	0.0226
PV	0.3248	4.0956	0.0155
	(0.0372)	2.1828	0.0329
Region = Northeast	-0.0499	-0.6020	0.0055
	(0.0081)	0.3865	0.0075
Region = North	0.0254	0.8173	0.0150
	(0.0084)	0.4019	0.0078
Region = Southeast	0.0302	-0.5505	-0.0128
	(0.0069)	0.3253	0.0064
Region = South	-0.0196	-1.3066	-0.0250
	(0.0080)	0.3778	0.0072, 3
Constant	-0.3067	-1.4493	0.0226
	(0.0798)	3.8869	0.0723
Number of Observations	77692	77692	77692
Adjusted R-Squared	0.0529	0.0095	0.0182

(2) Table B-2, Linear regression from section V-A without controlling for parties

Independent Variables	Women Representation	Percentage of Female Candidates	Quota
Student per teacher	0.0037 (0.0003)	0.0822 (0.0146)	0.0012 (0.0003)
GDP per capita	0.0014 (0.0003)	0.0669 (0.0132)	0.0011 (0.0003)
Average Schooling – male	0.0114 (0.0219)	-0.6007 (1.0359)	-0.0010 (0.0192)
Average Schooling – female	-0.0010 (0.0210)	0.6892 (0.9978)	0.0053 (0.0183)
Percentage of Women in Municipality	0.0124 (0.0016)	0.5969 (0.0742)	0.0080 (0.0014)
Percentage of Catholics in Municipality	-0.0019 (0.0003)	-0.0804 (0.0146)	-0.0015 (0.0003)
Percentage of Protestants in Municipality	-0.0001 (0.0005)	-0.0310 (0.0241)	-0.0007 (0.0005)
District Magnitude	0.0060 (0.0005)	-0.1078 (0.0225)	-0.0047 (0.0005)
Vaccine pc	0.0045 (0.0058)	0.6651 (0.2716)	0.0174 (0.0052)
Infant Mortality pc	-25.5979 (7.0012)	-880.0000 (324.5340)	-16.4583 (5.8791)
Expenditure in Education per capita	0.0000 (0.000)	0.0001 (0.0001)	0.0000 (0.0000)
Expenditure in Health per capita	-0.0000 (0.0000)	-0.0001 (0.0001)	-0.0000 (0.0000)
Year = 2004	-0.0253 (0.0040)	2.8988 (0.1850)	0.0864 (0.0035)
Ideology – Left	-0.0408 (0.0036)	-0.4678 (0.1732)	-0.0098 (0.0033)
Region = Northeast	-0.0628 (0.0082)	-0.5232 (0.3852)	0.0081 (0.0075)
Region = North	0.0137 (0.0085)	0.8664 (0.4018)	0.0172 (0.0078)
Region = Southeast	0.0222 (0.0070)	-0.4799 (0.3246)	-0.0107 (0.0064)
Region = South	-0.0199 (0.0081)	-1.3350 (0.3760)	-0.0257 (0.0073)
Constant	0.0654 (0.0779)	-5.2107 (3.7202)	-0.0782 (0.0699)
Number of Observations	77692	77692	77692
Adjusted R-Squared	0.0281	0.0086	0.0162

(3) Table B-3, Linear regression from section V-A with the number, not percentage, of  
female candidates as dependent variable

Independent Variables	Number of female candidates
Student per teacher	0.0187 (0.0011)
GDP per capita	0.0101 (0.0011)
Average Schooling – male	0.1656 (0.0601)
Average Schooling – female	-0.1868 (0.0563)
Percentage of Women in Municipality	0.0934 (0.0052)
Percentage of Catholics in Municipality	-0.0153 (0.0001)
Percentage of Protestants in Municipality	-0.0039 (0.0016)
District Magnitude	0.1427 (0.0046)
Vaccine pc	0.0547 (0.0178)
Infant Mortality pc	-150.0000 (18.5599)
Expenditure in Education per capita	0.0000 (0.000)
Expenditure in Health per capita	-0.0000 (0.0000)
Year = 2004	0.2144 (0.0167)
Ideology – Left	-1.0996 (0.1384)
PC do B	-0.8392 (0.1251)
PCB	omitted
PCO	-1.3221 (0.3817)
PDT	1.9095 (0.1239)
PFL	1.0988 (0.0687)
PGT	-0.2245 (0.1473)
PHS	0.2715 (0.0800)
PL	0.7676 (0.0694)
PMDB	1.2386 (0.0687)
PMN	1.5490 (0.1288)
PP	0.8563 (0.0687)
PPS	1.8759

	(0.1241)
PRN	-0.2482
	(0.1370)
PRONA	0.3246
	(0.1070)
PRP	0.3906
	(0.0761)
PRTB	0.1605
	(0.0807)
PSB	1.8315
	(0.1243)
PSC	0.4668
	(0.0732)
PSD	0.7463
	(0.0816)
PSDB	1.0867
	(0.0688)
PSDC	0.4771
	(0.0786)
PSL	0.3845
	(0.0748)
PST	0.4022
	(0.0960)
PSTU	-1.2731
	(0.1212)
PT	2.1138
	(0.1236)
PT DO B	0.3668
	(0.0829)
PTB	0.8871
	(0.0691)
PTC	0.4630
	(0.0895)
PTN	0.1707
	(0.0826)
PV	1.7109
	(0.1281)
Region = Northeast	-0.2383
	(0.0261)
Region = North	0.0916
	(0.0263)
Region = Southeast	0.2243
	(0.0230)
Region = South	0.0153
	(0.0258)
Constant	-4.7134
	(0.2519)
Number of Observations	77692
Adjusted R-Squared	0.1895



(4) Table B-4, Model from section V-A with logit specification

Independent Variables	Percentage of female candidates
Student per teacher	0.0206 (0.0015)
GDP per capita	0.0088 (0.0019)
Average Schooling – male	0.0778 (0.0990)
Average Schooling – female	-0.0623 (0.0941)
Percentage of Women in Municipality	0.0710 (0.0071)
Percentage of Catholics in Municipality	-0.0131 (0.0015)
Percentage of Protestants in Municipality	-0.0007 (0.0025)
District Magnitude	0.0574 (0.0035)
Vaccine pc	0.0404 (0.0266)
Infant Mortality pc	-150.0000 (31.1416)
Expenditure in Education per capita	0.0000 (0.0000)
Expenditure in Health per capita	-0.0000 (0.0000)
Year = 2004	0.0128 (0.0194)
Ideology – Left	0.4533 (0.0939)
PC do B	-0.9212 (0.0695)
PCB	-1.5004 (0.1824)
PCO	-0.3822 (0.3716)
PDT	0.1788 (0.0550)
PFL	1.1038 (0.0867)
PGT	-0.3252 (0.1721)
PHS	0.2352 (0.1026)
PL	0.6808 (0.0875)
PMDB	1.2191 (0.0866)
PMN	-0.0845 (0.0715)
PP	0.7859 (0.0868)
PPS	0.2111 (0.0557)
PRN	-0.0748 (0.1772)

PRONA	0.3369 (0.1295)
PRP	0.2971 (0.0975)
PRTB	0.0921 (0.1048)
PSB	0.1620 (0.0572)
PSC	0.3525 (0.0931)
PSD	0.7396 (0.1052)
PSDB	1.0629 (0.0867)
PSDC	0.3977 (0.1008)
PSL	0.3928 (0.0970)
PST	0.3496 (0.1179)
PSTU	-0.7659 (0.1825)
PT	0.4454 (0.0537)
PT DO B	0.3427 (0.1052)
PTB	0.8363 (0.0869)
PTC	0.3506 (0.1168)
PTN	0.1402 (0.1071)
PV	(omitted)
Region = Northeast	-0.2192 (0.0378)
Region = North	0.1149 (0.0393)
Region = Southeast	0.1573 (0.0329)
Region = South	-0.0784 (0.0369)
Constant	-3.6059 (0.3647)
Number of Observations	77692
Pseudo R-Squared	0.0432

(5) Table B-5, Model from section V-A with probit specification (coefficients correspond to marginal effects,  $df/dx$ )

Independent Variables	Percentage of female candidates
Student per teacher	0.0126 (0.0009)
GDP per capita	0.0050 (0.0010)
Average Schooling – male	0.0501 (0.0601)
Average Schooling – female	-0.0384 (0.0573)
Percentage of Women in Municipality	0.0449 (0.0044)
Percentage of Catholics in Municipality	-0.0081 (0.0009)
Percentage of Protestants in Municipality	-0.0007 (0.0015)
District Magnitude	0.0333 (0.0020)
Vaccine pc	0.0262 (0.0162)
Infant Mortality pc	-91.0769 (19.0006)
Expenditure in Education per capita	0.0000 (0.0000)
Expenditure in Health per capita	-0.0000 (0.0000)
Year = 2004	0.0057 (0.0118)
Ideology – Left	-0.6203 (0.1121)
PC do B	0.3398 (0.1053)
PCB	omitted
PCO	-0.2412 (0.2183)
PDT	1.0159 (0.1024)
PFL	0.6802 (0.0525)
PGT	-0.1851 (0.1049)
PHS	0.1484 (0.0625)
PL	0.4244 (0.0532)
PMDB	0.7505 (0.0525)
PMN	0.8522 (0.1060)
PP	0.4871 (0.0527)
PPS	1.0358

	(0.1025)
PRN	-0.0409
	(0.1068)
PRONA	0.2065
	(0.0785)
PRP	0.1848
	(0.0594)
PRTB	0.0606
	(0.0639)
PSB	1.0055
	(0.1028)
PSC	0.2216
	(0.0567)
PSD	0.4548
	(0.0636)
PSDB	0.6579
	(0.0526)
PSDC	0.2493
	(0.0614)
PSL	0.2432
	(0.0591)
PST	0.2203
	(0.0719)
PSTU	-0.4498
	(0.1109)
PT	1.1805
	(0.1021)
PT DO B	0.2136
	(0.0640)
PTB	0.5203
	(0.0528)
PTC	0.2176
	(0.0714)
PTN	0.0883
	(0.0652)
PV	0.9043
	(0.1045)
Region = Northeast	-0.1385
	(0.0230)
Region = North	0.0710
	(0.0239)
Region = Southeast	0.0927
	(0.0199)
Region = South	-0.0489
	(0.0225)
Constant	-2.2584
	(0.2224)
Number of Observations	77692
Pseudo R-Squared	0.0433

(6) Table B-6, regressions from section V-B, presented on Table 4, with coefficients of  
party dummies

Independent Variables	Elected Males		Elected Females		Party Success	
	2000	2004	2000	2004	2000	2004
Percentage of female candidates	0.4690 (0.0252)	0.3689 (0.0228)	0.5219 (0.0114)	0.4450 (0.0105)	0.2674 (0.0067)	0.216 (0.0054)
Percentage of female candidates <sup>2</sup>	-0.0104 (0.0003)	-0.0084 (0.0003)	-0.0038 (0.0001)	-0.0029 (0.0001)	-0.0037 (0.0001)	-0.0028 (0.0001)
Student per teacher	-0.1733 (0.0408)	-0.3317 (0.0447)	-0.0481 (0.0185)	-0.0468 (0.0206)	-0.1160 (0.0109)	-0.124 (0.0106)
GDP per capita	-0.1141 (0.0348)	-0.1430 (0.0365)	-0.0450 (0.0158)	-0.0058 (0.0168)	-0.0221 (0.0093)	-0.0214 (0.0087)
Average Schooling – male	3.3878 (2.7494)	-0.4805 (2.9137)	0.0200 (1.2453)	-2.9894 (1.3428)	-0.3152 (0.7316)	-1.5012 (0.6925)
Average Schooling – female	0.1202 (2.6328)	1.2570 (2.7622)	0.0751 (1.1925)	3.0424 (1.2730)	1.1072 (0.7006)	1.6847 (0.6565)
Percentage of Women in Municipality	-0.9667 (0.2133)	-1.4002 (0.1994)	-0.2514 (0.0966)	-0.6232 (0.0919)	-0.3499 (0.0568)	-0.428 (0.0474)
Percentage of Catholics in	0.2326 (0.0403)	0.1562 (0.0405)	0.0436 (0.0183)	0.0599 (0.0187)	0.0971 (0.0107)	0.0726 (0.0096)
Percentage of Protestants in	0.1017 (0.0676)	-0.0139 (0.0666)	-0.0414 (0.0306)	-0.0366 (0.0307)	0.0300 (0.0180)	0.0021 (0.0158)
District Magnitude	0.4732 (0.0688)	0.6669 (0.0897)	-0.0395 (0.0312)	0.1072 (0.0413)	-0.3134 (0.0183)	-0.0983 (0.0213)
Vaccine pc	-0.4489 (0.6554)	-1.9100 (1.0566)	0.0434 (0.2969)	-0.8141 (0.4870)	-0.6470 (0.1744)	-0.9414 (0.2511)
Infant Mortality pc	2600.000 (836.359)	2900.000 (992.258)	49.2730 (378.8232)	1400.0000 (457.2922)	1300.0000 (222.5654)	1300.0000 (235.8302)
Expenditure in Education per capita	-0.0008 (0.0007)	0.0000 (0.0002)	0.0001 (0.0003)	-0.0000 (0.0001)	0.0003 (0.0002)	0.0000 (0.0000)
Expenditure in Health per capita	0.0007 (0.0006)	0.0000 (0.0002)	-0.0000 (0.0003)	0.0000 (0.0001)	-0.0001 (0.0002)	0.0000 (0.0000)
Ideology – Left	14.5535 (3.2777)	13.2106 (2.3442)	1.2459 (1.4846)	1.1219 (1.0804)	1.1519 (0.8722)	1.7218 (0.5572)
PC do B	-5.3667 (2.3124)	-11.1738 (1.7947)	2.0809 (1.0474)	-0.5920 (0.8271)	-0.2635 (0.6154)	-1.5663 (0.4265)
PCB	-21.5916 (5.7241)	-20.2998 (3.9773)	1.9596 (2.5927)	-1.1054 (1.833)	1.5453 (1.5233)	-1.8840 (0.9453)
PCO	-10.3731 (11.8583)	-10.1236 (8.3412)	-0.7455 (5.3711)	-1.7322 (3.8441)	3.1769 (3.1556)	0.5566 (1.9825)
PDT	28.4078 (1.8768)	16.9601 (1.4698)	3.4823 (0.8501)	2.8334 (0.6774)	5.5444 (0.4994)	3.8071 (0.3493)
PFL	56.6181 (2.9365)	42.8726 (2.1904)	7.4228 (1.3301)	5.8977 (1.0095)	13.2307 (0.7814)	10.9064 (0.5206)
PGT	-1.4368 (4.1640)	omitted	1.1737 (1.8860)	omitted	0.5806 (1.1081)	omitted
PHS	8.7065 (3.6137)	5.3019 (2.5567)	1.1665 (1.6368)	2.0611 (1.1783)	0.6902 (0.9617)	0.9305 (0.6077)
PL	40.9258 (2.9929)	35.3728 (2.2068)	5.3294 (1.3556)	4.035 (1.0170)	6.2083 (0.7964)	6.5720 (0.5245)
PMDB	58.6177	43.7796	7.1708	6.6845	14.1449	11.5933

	(2.9326)	(2.1830)	(1.3283)	(1.0061)	(0.7804)	(0.5188)
PMN	9.2394	-1.5685	1.1293	1.2302	1.1709	-0.0462
	(2.4336)	(1.8803)	(1.1023)	(0.8665)	(0.6476)	(0.4469)
PP	49.9997	38.6682	6.5833	6.0401	9.8376	8.8087
	(2.9501)	(2.2014)	(1.3362)	(1.0146)	(0.7851)	(0.5232)
PPS	21.5746	16.0050	2.7862	2.1223	3.425	3.2881
	(1.8971)	(1.4806)	(0.8593)	(0.6823)	(0.5048)	(0.3519)
PRN	10.5448	omitted	1.7129	omitted	0.9737	omitted
	(4.1701)		(1.8888)		(1.1097)	
PRONA	4.8261	10.0449	1.7797	0.5082	1.3663	1.3162
	(4.6670)	(3.1152)	(2.1139)	(1.4357)	(1.2420)	(0.7404)
PRP	19.2741	16.8046	2.4545	2.8103	1.4453	2.9306
	(3.3338)	(2.4760)	(1.5100)	(1.1411)	(0.8872)	(0.5885)
PRTB	12.4200	4.5800	2.1923	1.9355	1.1757	1.0173
	(3.5899)	(2.6677)	(1.6260)	(1.2294)	(0.9553)	(0.6340)
PSB	18.2378	8.0324	3.0171	2.4185	2.5586	2.0595
	(1.9426)	(1.5256)	(0.8799)	(0.7031)	(0.5169)	(0.3626)
PSC	23.9751	14.4710	2.1048	1.7577	2.0818	2.1807
	(3.1453)	(2.3971)	(1.4246)	(1.1047)	(0.8370)	(0.5697)
PSD	34.7638	omitted	4.6374	omitted	5.1369	omitted
	(3.1033)		(1.4056)		(0.8258)	
PSDB	55.9161	43.8136	7.5439	6.7710	12.5138	11.2391
	(2.9401)	(2.1944)	(1.3317)	(1.0113)	(0.7824)	(0.5215)
PSDC	19.4555	9.2250	1.1293	2.0997	1.5232	1.3538
	(3.4586)	(2.5490)	(1.5666)	(1.1747)	(0.9204)	(0.6058)
PSL	25.0190	13.2403	1.6237	1.3103	2.4971	1.9169
	(3.2791)	(2.4715)	(1.4852)	(1.1390)	(0.8726)	(0.5874)
PST	22.6570	omitted	3.4818	omitted	2.2172	omitted
	(3.3054)		(1.4971)		(0.8796)	
PSTU	-6.5509	-12.8698	0.4439	-0.4028	1.5078	-0.0994
	(5.4432)	(5.1469)	(2.4655)	(2.3720)	(1.4485)	(1.2233)
PT	9.3647	6.5975	2.3146	2.3978	0.1844	1.3725
	(1.8500)	(1.4029)	(0.8380)	(0.6465)	(0.4923)	(0.3334)
PT DO B	14.7978	10.6710	2.4266	2.1375	1.1086	2.0224
	(3.5498)	(2.6692)	(1.6079)	(1.2301)	(0.9447)	(0.6344)
PTB	48.1919	36.0196	6.1266	4.8620	7.8991	6.8716
	(2.9559)	(2.2027)	(1.3389)	(1.0151)	(0.7866)	(0.5235)
PTC	omitted	8.6473	omitted	2.0328	omitted	1.5279
		(2.6782)		(1.2343)		(0.6365)
PTN	8.0566	5.9181	1.4997	-0.4513	0.8939	0.5485
	(3.8170)	(2.6481)	(1.7289)	(1.2204)	(1.0157)	(0.6294)
PV	omitted	omitted	omitted	omitted	omitted	omitted
Region = Northeast	2.9076	2.6619	0.9200	1.0562	1.4464	0.9157
	(1.1169)	(1.0597)	(0.5059)	(0.4884)	(0.2972)	(0.2519)
Region = North	-1.3646	-0.3504	0.1656	0.2799	-0.6891	-0.4839
	(1.1659)	(1.0874)	(0.5281)	(0.5011)	(0.3103)	(0.2584)
Region = Southeast	0.7545	-0.5195	-1.0897	-1.5433	-0.8327	-0.6525
	(0.9484)	(0.9409)	(0.4296)	(0.4336)	(0.2524)	(0.2236)
Region = South	1.7750	2.8733	-0.8205	-0.3837	0.3772	0.7949
	(1.1221)	(1.0244)	(0.5082)	(0.4721)	(0.2986)	(0.2435)
Constant	29.3345	72.9934	6.0576	22.0794	15.6791	20.2707
	(11.0052)	(10.1977)	(4.9847)	(4.6997)	(2.9286)	(2.4237)
Number of Observations	37798	39894	37798	39894	37798	39894
Adjusted R-Squared	0.1832	0.1555	0.0913	0.0899	0.2529	0.2007

(7) Table B-7, regressions from section V-B, presented on Table 4, without party dummies

Independent Variables	Elected Males		Elected Females		Party Success	
	2000	2004	2000	2004	2000	2004
Percentage of female candidates	0.6735 (0.0261)	0.5429 (0.0233)	0.5443 (0.0113)	0.4706 (0.0104)	0.3184 (0.0070)	0.2606 (0.0056)
Percentage of female candidates <sup>2</sup>	-0.0133 (0.0003)	-0.0106 (0.0003)	-0.0041 (0.0001)	-0.0032 (0.0001)	-0.0044 (0.0001)	-0.0034 (0.0001)
Student per teacher	-0.2832 (0.0427)	-0.5246 (0.0463)	-0.0622 (0.0185)	-0.0746 (0.0206)	-0.1473 (0.0114)	-0.1729 (0.0111)
GDP per capita	-0.154 (0.0365)	-0.176 (0.0379)	-0.0498 (0.0158)	-0.0103 (0.0169)	-0.0305 (0.0098)	-0.0290 (0.0091)
Average Schooling – male	2.6577 (2.8850)	-3.9427 (3.0255)	-0.1016 (1.2495)	-3.4486 (1.3469)	-0.6296 (0.7722)	-2.3129 (0.7253)
Average Schooling – female	2.3644 (2.7626)	4.9198 (2.8682)	0.3881 (1.1965)	3.5303 (1.2769)	1.815 (0.7395)	2.5442 (0.6876)
Percentage of Women in Municipality	-1.7826 (0.2233)	-2.155 (0.2064)	-0.351 (0.0967)	-0.7228 (0.0919)	-0.5484 (0.0598)	-0.6051 (0.0495)
Percentage of Catholics in Municipality	0.4405 (0.0421)	0.3039 (0.0420)	0.0684 (0.0182)	0.081 (0.0187)	0.1481 (0.0113)	0.1108 (0.0101)
Percentage of Protestants in Municipality	0.1823 (0.0709)	0.0016 (0.0692)	-0.0333 (0.0307)	-0.0331 (0.0308)	0.0479 (0.0190)	0.0077 (0.0166)
District Magnitude	-0.1834 (0.0709)	0.1901 (0.0921)	-0.1157 (0.0307)	0.0439 (0.041)	-0.4611 (0.0190)	-0.2029 (0.0221)
Vaccine pc	-0.9812 (0.6876)	-3.2673 (1.0971)	-0.0291 (0.2978)	-1.0108 (0.4884)	-0.8285 (0.1840)	-1.2926 (0.2630)
Infant Mortality pc	3500.000 (877.0775)	4400.000 (1000.000)	149.276 (379.871)	1600.000 (458.637)	1600.00 (234.764)	1700.00 (246.9539)
Expenditure in Education per capita	-0.0002 (0.0007)	0.0000 (0.0002)	0.0002 (0.0003)	0.0000 (0.0001)	0.0004 (0.0002)	0.0000 (0.0000)
Expenditure in Health per capita	0.0003 (0.0006)	0.0001 (0.0002)	-0.0001 (0.0003)	0.0000 (0.0001)	-0.0002 (0.0002)	0.0000 (0.0001)
Ideology – Left	-13.5071 (0.5110)	-9.9035 (0.4835)	-1.813 (0.2213)	-1.478 (0.2152)	-5.1682 (0.1368)	-3.4747 (0.1159)
Region = Northeast	2.2570 (1.1703)	-0.3068 (1.0978)	0.8253 (0.5069)	0.6535 (0.4888)	1.2265 (0.3133)	0.2128 (0.2632)
Region = North	-2.6635 (1.2223)	-2.6551 (1.1271)	0.0261 (0.5294)	-0.0532 (0.5018)	-1.0737 (0.3272)	-1.0567 (0.2702)
Region = Southeast	-0.5309 (0.9933)	-2.3845 (0.9758)	-1.2627 (0.4302)	-1.8213 (0.4344)	-1.1998 (0.2659)	-1.1139 (0.2339)
Region = South	1.8542 (1.1727)	3.176 (1.0619)	-0.8429 (0.5079)	-0.3341 (0.4727)	0.3273 (0.3139)	0.8511 (0.2546)
Constant	102.7979 (11.128)	138.3284 (10.3046)	15.367 (4.8198)	31.02 (4.5875)	31.5223 (2.9787)	35.0786 (2.4702)
Number of Observations	37798	39894	37798	39894	37798	39894
Adjusted R-Squared	0.0994	0.0880	0.0839	0.0829	0.1666	0.1219

(8) Table B-8, Regressions from table 3, section V-D, Region 1 (Centre)

Independent Variables	Elected Males		Elected Females		Party Success	
	2000	2004	2000	2004	2000	2004
Percentage of female candidates	0.4331	0.3781	0.5398	0.4768	0.2699	0.2233
	0.0886	0.0761	0.0419	0.0369	0.0229	0.0180
Percentage of female candidates <sup>2</sup>	-0.0100	-0.0087	-0.0045	-0.0033	-0.0037	-0.0030
	0.0011	0.0009	0.0005	0.0004	0.0003	0.0002
Student per teacher	-0.2377	-0.1655	-0.0298	-0.0341	-0.0244	-0.0274
	0.1438	0.1396	0.0680	0.0676	0.0372	0.0331
GDP per capita	-0.1111	0.0004	0.0392	0.2253	-0.0996	0.0112
	0.2695	0.2323	0.1274	0.1125	0.0696	0.0551
Average Schooling – male	8.2251	18.0465	-2.5098	3.0534	-0.6037	1.3194
	9.9548	9.6377	4.7070	4.6690	2.5722	2.2855
Average Schooling – female	-7.3091	-15.5084	0.6328	-1.8023	2.0339	-0.4553
	9.3694	8.8709	4.4302	4.2976	2.4210	2.1037
Percentage of Women in Municipality	-1.2477	-0.9959	0.3556	-0.4401	-0.4163	-0.4016
	0.7324	0.6249	0.3463	0.3027	0.1893	0.1482
Percentage of Catholics in Municipality	0.0648	0.1868	0.1112	-0.0114	0.0535	0.0247
	0.1703	0.1569	0.0805	0.0760	0.0440	0.0372
Percentage of Protestants in Municipality	0.0131	-0.0205	0.0922	-0.0576	0.0632	0.0045
	0.2679	0.2516	0.1267	0.1219	0.0692	0.0597
District Magnitude	1.0430	1.0046	0.0396	0.0210	-0.2957	-0.1372
	0.2963	0.3192	0.1401	0.1546	0.0766	0.0757
Vaccine pc	-2.9379	-0.848	2.8182	-0.8931	0.1935	-1.6639
	2.3547	2.9557	1.1134	1.4319	0.6084	0.7009
Infant Mortality pc	839.8146	2100.00	-700.00	670.1299	675.1471	1400.00
	3800.00	3700.00	1800.00	1800.00	983.1126	875.7559
Expenditure in Education per capita	0.0188	0.0061	0.0083	-0.0009	0.0062	0.0014
	0.0105	0.0019	0.0049	0.0009	0.0027	0.0004
Expenditure in Health per capita	-0.0134	-0.0037	-0.0053	0.0007	-0.0013	-0.0008
	0.0137	0.0013	0.0065	0.0006	0.0036	0.0003
Ideology – Left	13.695	15.2854	2.9937	0.7053	1.9115	1.3836
	8	10.7361	6.3068	5.2011	3.4465	2.546
Constant	57.2911	30.7393	-34.320	16.1712	15.7113	18.7078
	40.3636	35.0085	19.0853	16.9600	10.4295	8.302
Number of Observations	3066	3635	3066	3635	3066	3635
Adjusted R-Squared	0.1981	0.1854	0.0939	0.0891	0.3055	0.2047



(9) Table B-9, Regressions from table 3, section V-D, Region 2 (Northeast)

Independent Variables	Elected Males		Elected Females		Party Success	
	2000	2004	2000	2004	2000	2004
Percentage of female candidates	0.2865	0.3860	0.6160	0.4850	0.2808	0.2379
	0.0411	0.0339	0.0194	0.0165	0.0122	0.0085
Percentage of female candidates <sup>2</sup>	-0.0089	-0.0087	-0.0041	-0.0028	-0.0039	-0.0031
	0.0005	0.0004	0.0002	0.0002	0.0001	0.0001
Student per teacher	0.0195	-0.2452	-0.1385	-0.0330	-0.0726	-0.0939
	0.0866	0.0791	0.0409	0.0385	0.0257	0.0198
GDP per capita	-0.0970	-0.1392	0.0077	0.0371	-0.0132	-0.0164
	0.0586	0.0519	0.0277	0.0252	0.0174	0.0130
Average Schooling – male	-1.4178	-2.5247	-0.0199	-6.8089	2.1483	-1.9167
	5.8768	5.1344	2.7732	2.4988	1.7463	1.2843
Average Schooling – female	2.6063	3.0938	-0.5643	6.4920	-1.0603	2.2221
	5.5267	4.8444	2.608	2.3576	1.6423	1.2118
Percentage of Women in Municipality	-0.7133	-1.2470	-0.0888	-0.6590	-0.1817	-0.3799
	0.3823	0.3221	0.1804	0.1567	0.1136	0.0806
Percentage of Catholics in Municipality	0.1371	0.0795	0.0194	0.0787	0.0646	0.0310
	0.0691	0.0622	0.0326	0.0303	0.0205	0.0156
Percentage of Protestants in Municipality	-0.3485	-0.4481	-0.1329	-0.0815	-0.2192	-0.1942
	0.1472	0.1264	0.0695	0.0615	0.0438	0.0316
District Magnitude	0.6093	0.8878	-0.1419	0.0907	-0.3837	-0.1685
	0.1267	0.2027	0.0598	0.0986	0.0376	0.0507
Vaccine pc	-1.1400	-1.7472	-0.2030	-0.9496	-0.9007	-0.6893
	1.1103	1.8080	0.5240	0.8799	0.3299	0.4523
Infant Mortality pc	2700.00	2400.00	646.1659	1000.00	1600.00	981.254
	1200.00	1500.00	555.2504	750.2502	349.6453	385.6125
Expenditure in Education per capita	-0.0006	0.0010	0.0003	0.0001	0.0007	0.0002
	0.0019	0.0005	0.0009	0.0002	0.0006	0.0001
Expenditure in Health per capita	0.0004	-0.0008	0.0000	-0.0001	-0.0005	-0.0001
	0.0016	0.0005	0.0008	0.0002	0.0005	0.0001
Ideology – Left	1.6151	13.743	2.1702	1.4352	0.6109	2.0908
	5.8750	3.2879	2.7723	1.6001	1.7458	0.8224
Constant	41.5220	75.6646	2.9459	22.6194	12.8759	23.0938
	19.2233	16.0929	9.0713	7.8319	5.7122	4.0254
Number of Observations	12943	16994	12943	16994	12943	16994
Adjusted R-Squared	0.1828	0.1560	0.1344	0.1134	0.2530	0.2148

(10) Table B-10, Regressions from table 3, section V-D, Region 3 (North)

Independent Variables	Elected Males		Elected Females		Party Success	
	2000	2004	2000	2004	2000	2004
Percentage of female candidates	0.4413	0.1618	0.5635	0.4907	0.2467	0.1537
	0.0810	0.0659	0.0400	0.0322	0.0194	0.0140
Percentage of female candidates <sup>2</sup>	-0.0090	-0.0062	-0.0045	-0.0036	-0.0032	-0.0022
	0.0010	0.0008	0.0005	0.0004	0.0002	0.0002
Student per teacher	0.0510	-0.3520	-0.0213	-0.0723	-0.0225	-0.0488
	0.1400	0.1101	0.0690	0.0538	0.0335	0.0234
GDP per capita	-0.1241	-0.4489	-0.1738	-0.2373	-0.1268	-0.1516
	0.3631	0.3782	0.1791	0.1850	0.0868	0.0803
Average Schooling – male	5.3300	4.3511	1.4243	0.9486	0.6171	-2.4314
	10.2841	8.7807	5.0718	4.2948	2.4593	1.8643
Average Schooling – female	-2.7801	-4.0862	-1.3051	-1.4786	0.2890	2.7051
	9.6399	8.2688	4.7540	4.0444	2.3053	1.7556
Percentage of Women in Municipality	-0.9131	-1.1504	-0.3198	-0.3009	-0.3107	-0.327
	0.6406	0.5106	0.3159	0.2498	0.1532	0.1084
Percentage of Catholics in Municipality	-0.1812	-0.0301	-0.0540	-0.0620	0.0236	0.0197
	0.1291	0.1113	0.0637	0.0544	0.0309	0.0236
Percentage of Protestants in Municipality	-0.4078	-0.0184	-0.2104	-0.1798	-0.0999	-0.0276
	0.1978	0.1698	0.0976	0.0831	0.0473	0.0361
District Magnitude	0.7072	1.3794	0.0453	0.3116	-0.2597	-0.0628
	0.2788	0.3263	0.1375	0.1596	0.0667	0.0693
Vaccine pc	-0.0560	-1.8525	-0.1771	-0.0507	0.2013	0.052
	1.3759	1.9647	0.6786	0.961	0.3290	0.4171
Infant Mortality pc	165.1947	1700.00	-280.00	762.0604	615.1734	521.8483
	2000.00	1700.00	1000.00	823.7697	489.3497	357.5809
Expenditure in Education per capita	-0.0126	0.0014	0.0012	0.0016	-0.0015	0.0012
	0.0060	0.0022	0.0030	0.0011	0.0014	0.0005
Expenditure in Health per capita	0.0362	-0.0011	-0.0054	-0.0012	0.0048	-0.0010
	0.0172	0.0018	0.0085	0.0009	0.0041	0.0004
Ideology – Left	2.1966	13.0238	1.7867	1.2833	-0.0331	1.8666
	12.7900	6.9671	6.3076	3.4077	3.0586	1.4792
Constant	60.5535	71.7456	17.5862	18.3100	17.7392	17.2309
	31.8668	25.1130	15.7155	12.2832	7.6205	5.3319
Number of Observations	3734	4844	3734	4844	3734	4844
Adjusted R-Squared	0.1850	0.1533	0.0913	0.0907	0.2610	0.1853

(11) Table B-11, Regressions from table 3, section V-D, Region 4 (Southeast)

Independent Variables	Elected Males		Elected Females		Party Success	
	2000	2004	2000	2004	2000	2004
Percentage of female candidates	0.5783	0.3686	0.4226	0.300	0.2071	0.1491
	0.0448	0.0505	0.0191	0.0204	0.0103	0.0105
Percentage of female candidates <sup>2</sup>	-0.0110	-0.0071	-0.0035	-0.0022	-0.0029	-0.0020
	0.0006	0.0006	0.0002	0.0002	0.0001	0.0001
Student per teacher	-0.2953	-0.3735	-0.0483	-0.0207	-0.0919	-0.0980
	0.0703	0.0939	0.0300	0.0379	0.0161	0.0194
GDP per capita	-0.1365	-0.0865	-0.0751	-0.0136	-0.0339	-0.0176
	0.0488	0.0652	0.0208	0.0263	0.0112	0.0135
Average Schooling – male	4.4288	-8.4243	-0.6932	-2.3901	-0.0065	-0.5773
	4.3447	5.9966	1.8537	2.4188	0.9943	1.2414
Average Schooling – female	1.9726	7.0076	1.4703	2.5694	0.7712	0.6211
	4.2210	5.8052	1.8009	2.3416	0.9660	1.2018
Percentage of Women in Municipality	-1.3233	-0.4317	-0.4278	-0.8903	-0.7394	-0.5049
	0.3989	0.4988	0.1702	0.2012	0.0913	0.1033
Percentage of Catholics in Municipality	0.3202	0.2082	0.0778	0.0270	0.0519	0.0463
	0.0764	0.0998	0.0326	0.0403	0.0175	0.0207
Percentage of Protestants in Municipality	0.3481	0.1330	0.0347	-0.0365	0.0062	-0.0019
	0.1287	0.1558	0.0549	0.0629	0.0295	0.0323
District Magnitude	0.6147	0.6667	0.0751	0.1536	-0.1911	-0.0219
	0.1098	0.1279	0.0469	0.0516	0.0251	0.0265
Vaccine pc	1.4751	-2.2800	0.1318	-1.0329	0.6499	-0.4897
	1.2640	2.7892	0.5393	1.125	0.2893	0.5774
Infant Mortality pc	4600.00	5800.00	-1200.00	1900.00	966.1986	2700.00
	2000.00	3700.00	859.2403	1500.00	460.9059	762.8388
Expenditure in Education per capita	-0.0004	-0.0009	0.0000	0.0001	0.0002	-0.0001
	0.0013	0.0004	0.0005	0.0002	0.0003	0.0001
Expenditure in Health per capita	0.0004	0.0011	0.0000	-0.0002	0.0001	0.0001
	0.0013	0.0005	0.0006	0.0002	0.0003	0.0001
Ideology – Left	23.8974	14.9433	0.6197	0.6919	1.6898	1.5595
	4.6164	4.6807	1.9696	1.888	1.0565	0.969
Constant	21.3391	23.3100	10.8083	38.5917	35.6901	25.2856
	21.8991	28.3957	9.3435	11.4536	5.012	5.8784
Number of Observations	12957	8792	12957	8792	12957	8792
Adjusted R-Squared	0.2130	0.1878	0.0624	0.0521	0.2753	0.2347

(12) Table B-12, Regressions from table 3, section V-D, Region 5 (South)

Independent Variables	Elected Males		Elected Females		Party Success	
	2000	2004	2000	2004	2000	2004
Percentage of female candidates	0.6120	0.2282	0.4730	0.4591	0.3422	0.2140
	0.0700	0.0620	0.0306	0.0273	0.0197	0.0153
Percentage of female candidates <sup>2</sup>	-0.0119	-0.0068	-0.0032	-0.0033	-0.0045	-0.0028
	0.0009	0.0007	0.0004	0.0003	0.0002	0.0002
Student per teacher	-0.1762	-0.0724	-0.0046	0.0418	-0.2064	-0.2010
	0.1179	0.1263	0.0516	0.0556	0.0332	0.0312
GDP per capita	-0.1229	-0.2165	-0.0381	-0.0726	-0.0284	-0.0163
	0.1042	0.0937	0.0456	0.0413	0.0294	0.0231
Average Schooling – male	3.4114	-4.0112	3.9166	3.4537	2.2101	1.4347
	6.5620	6.8798	2.8710	3.0290	1.8480	1.6968
Average Schooling – female	2.2825	5.0876	-1.3350	1.0671	0.6227	0.2789
	5.8259	5.9723	2.5489	2.6295	1.6407	1.4729
Percentage of Women in Municipality	-0.0205	-1.8669	-0.1335	-0.7055	-0.6335	-0.6665
	0.6655	0.5934	0.2912	0.2613	0.1874	0.1463
Percentage of Catholics in Municipality	0.2860	0.2702	-0.0029	0.0490	0.1329	0.1244
	0.1356	0.1258	0.0593	0.0554	0.0382	0.0310
Percentage of Protestants in Municipality	0.2385	0.2210	-0.0382	-0.0064	0.1377	0.1280
	0.1596	0.1529	0.0698	0.0673	0.0449	0.0377
District Magnitude	0.4139	0.5766	-0.0341	0.0007	-0.2742	-0.0867
	0.1896	0.2823	0.0829	0.1243	0.0534	0.0696
Vaccine pc	4.3198	1.0292	0.5344	-0.2794	-2.6270	-1.3933
	3.8330	3.7757	1.6770	1.6623	1.0794	0.9312
Infant Mortality pc	2900.00	1400.00	1900.00	6000.00	1800.00	2400.00
	3200.00	3700.00	1400.00	1600.00	911.9417	919.8215
Expenditure in Education per capita	-0.0028	0.0029	0.0017	-0.0002	-0.0004	0.0005
	0.002	0.0011	0.0009	0.0005	0.0005	0.0003
Expenditure in Health per capita	0.0018	-0.0025	-0.0009	0.0003	0.0002	-0.0001
	0.0011	0.0014	0.0005	0.0006	0.0003	0.0004
Ideology – Left	16.0258	10.2469	0.1768	0.3914	0.6543	0.1126
	12.6201	8.1067	5.5216	3.5692	3.5540	1.9993
Constant	-45.5575	69.0452	-7.5815	12.5641	22.1119	23.3311
	35.7966	33.3827	15.6618	14.6977	10.0809	8.2332
Number of Observations	5098	5629	5098	5629	5098	5629
Adjusted R-Squared	0.1907	0.1891	0.0814	0.0921	0.2843	0.2909

(13) Table B-13, Regressions from table 3, section V-D, Ideology 1 (Centre)

Independent Variables	Elected Males		Elected Females		Party Success	
	2000	2004	2000	2004	2000	2004
Percentage of female candidates	0.4234	0.4088	0.6945	0.6334	0.4075	0.3622
	0.045	0.0489	0.0232	0.0254	0.0151	0.0144
Percentage of female candidates <sup>2</sup>	-0.0123	-0.0113	-0.0047	-0.0038	-0.0058	-0.0049
	0.0006	0.0006	0.0003	0.0003	0.0002	0.0002
Student per teacher	-0.1405	-0.3597	-0.0640	-0.0956	-0.1757	-0.1857
	0.0696	0.0913	0.0358	0.0474	0.0233	0.0270
GDP per capita	-0.0011	-0.0886	-0.0669	-0.0507	-0.0043	-0.0251
	0.064	0.0807	0.0330	0.0419	0.0214	0.0239
Average Schooling – male	0.0492	3.8468	1.4987	-4.5932	0.1896	-0.2698
	4.3318	5.602	2.2316	2.9061	1.4513	1.6563
Average Schooling – female	2.4972	-3.8179	-1.2813	4.0513	1.0887	0.1777
	4.103	5.2727	2.1137	2.7352	1.3747	1.5589
Percentage of Women in Municipality	0.2041	0.1956	-0.1653	-0.4457	-0.1437	-0.1803
	0.3553	0.4065	0.1830	0.2109	0.1190	0.1202
Percentage of Catholics in Municipality	0.2987	0.4377	0.0719	0.0596	0.2028	0.2168
	0.0686	0.0838	0.0353	0.0434	0.0230	0.0248
Percentage of Protestants in Municipality	0.2107	0.3077	-0.0175	-0.0579	0.1394	0.1350
	0.1105	0.1335	0.0569	0.0692	0.0370	0.0395
District Magnitude	0.5291	0.8171	-0.1802	-0.1592	-0.5736	-0.3099
	0.1327	0.2444	0.0684	0.1268	0.0445	0.0723
Vaccine pc	-1.5467	-3.0371	0.3202	-2.0672	-1.5344	-2.5334
	1.0947	2.2188	0.5639	1.1510	0.3668	0.6560
Infant Mortality pc	4100.00	3500.00	106.6732	2200.00	2700.00	2600.00
	1400.00	1900.00	701.9948	987.433	456.5547	562.7844
Expenditure in Education per capita	-0.0024	0.0001	0.0000	-0.0002	0.0002	0.0000
	0.0011	0.0003	0.0005	0.0001	0.0004	0.0001
Expenditure in Health per capita	0.0013	-0.0001	0.0000	0.0002	-0.0002	0.0001
	0.0009	0.0003	0.0005	0.0002	0.0003	0.0001
Region = Northeast	-5.0702	-4.3265	0.3537	-0.1717	-0.3587	-0.4652
	1.8745	2.1615	0.9657	1.1213	0.6281	0.6391
Region = North	-1.9788	-2.894	-0.1460	0.3456	-2.0805	-1.808
	1.9295	2.2004	0.9940	1.1415	0.6465	0.6506
Region = Southeast	-3.2364	-4.2101	-1.7190	-2.4764	-3.1374	-1.9063
	1.5692	1.8984	0.8084	0.9848	0.5258	0.5613
Region = South	-1.061	2.6799	-1.7824	-0.0101	-0.9875	1.9163
	1.8365	1.9985	0.9461	1.0367	0.6153	0.5909
Constant	-5.4266	19.3674	2.6536	23.5271	3.3297	10.7963
	17.7198	20.4278	9.1286	10.597	5.9369	6.0397
Number of Observations	11437	9139	11437	9139	11437	9139
Adjusted R-Squared	0.1177	0.1024	0.1145	0.1181	0.1704	0.1346

(14) Table B-14, Regressions from table 3, section V-D, Ideology 2  
(Undifferentiated)

Independent Variables	Elected Males		Elected Females		Party Success	
	2000	2004	2000	2004	2000	2004
Percentage of female candidates	0.5060	0.2972	0.2107	0.2620	0.1032	0.0942
	0.0691	0.0468	0.0237	0.0202	0.0107	0.0080
Percentage of female candidates <sup>2</sup>	-0.0082	-0.0056	-0.0017	-0.0016	-0.0014	-0.0012
	0.0008	0.0005	0.0003	0.0002	0.0001	0.0001
Student per teacher	-0.2066	-0.3170	-0.0200	-0.0267	-0.0522	-0.069
	0.1205	0.0992	0.0413	0.0429	0.0187	0.0170
GDP per capita	-0.2032	-0.2376	-0.0270	0.0187	-0.0217	-0.0344
	0.0979	0.0658	0.0335	0.0285	0.0152	0.0113
Average Schooling – male	13.1041	-10.811	-2.4485	-4.1692	0.0016	-1.4963
	10.2077	7.3510	3.4950	3.1788	1.5810	1.2584
Average Schooling – female	-13.2372	9.8546	2.8984	3.5433	-0.3586	1.4549
	9.9782	7.0648	3.4164	3.0551	1.5455	1.2094
Percentage of Women in Municipality	-2.4735	-1.7935	-0.5457	-0.6663	-0.3768	-0.4381
	0.6939	0.4621	0.2376	0.1998	0.1075	0.0791
Percentage of Catholics in Municipality	0.1505	0.0723	-0.0437	0.0386	0.0117	-0.0058
	0.1228	0.0892	0.0420	0.0386	0.0190	0.0153
Percentage of Protestants in Municipality	-0.3527	-0.1780	-0.1976	-0.0879	-0.0984	-0.0991
	0.2252	0.1573	0.0771	0.0680	0.0349	0.0269
District Magnitude	0.2374	0.4655	-0.0162	0.0488	-0.0775	-0.0265
	0.1571	0.1381	0.0538	0.0597	0.0243	0.0236
Vaccine pc	-0.6215	-2.4513	1.0609	0.5723	-0.1481	-0.1787
	2.0739	2.2346	0.7101	0.9663	0.3212	0.3825
Infant Mortality pc	1700.00	-1400.0	296.438	-1100.0	1200.00	-300.00
	2600.00	2300.00	895.5429	1000.00	405.1264	399.862
Expenditure in Education per capita	0.0004	0.0060	0.0009	0.0013	0.0007	0.001
	0.0028	0.0015	0.001	0.0006	0.0004	0.0003
Expenditure in Health per capita	0.0019	-0.0032	-0.0011	-0.0009	-0.0005	-0.0006
	0.0029	0.0010	0.001	0.0004	0.0005	0.0002
Region = Northeast	7.6737	12.827	2.9869	1.3414	1.0331	2.0401
	3.5728	2.4025	1.2233	1.0389	0.5534	0.4113
Region = North	-4.3641	4.9478	2.0336	-1.0948	-0.8778	0.3352
	3.9123	2.5852	1.3395	1.1179	0.6060	0.4425
Region = Southeast	-2.4359	2.6864	1.5674	-0.9691	-0.1081	0.0874
	3.2225	2.2030	1.1033	0.9526	0.4991	0.3771
Region = South	4.6118	9.7477	2.7426	-0.3931	0.9998	1.2370
	3.7612	2.5606	1.2878	1.1073	0.5826	0.4383
Constant	130.5889	97.2734	27.9107	29.871	22.7512	25.7618
	34.9433	23.0597	11.9641	9.9718	5.4123	3.9475
Number of Observations	3740	6785	3740	6785	3740	6785
Adjusted R-Squared	0.1141	0.0884	0.0450	0.0633	0.1495	0.1062

(15) Table B-15, Regressions from table 3, section V-D, Ideology 3 (Left)

Independent Variables	Elected Males		Elected Females		Party Success	
	2004	2000	2004	2000	2004	2000
Percentage of female candidates	0.5435	0.4070	0.4066	0.3711	0.1995	0.1737
	0.0479	0.0398	0.0196	0.0171	0.0098	0.0081
Percentage of female candidates <sup>2</sup>	-0.0099	-0.0081	-0.0030	-0.0023	-0.0026	-0.0023
	0.0006	0.0005	0.0002	0.0002	0.0001	0.0001
Student per teacher	-0.2130	-0.3481	-0.0557	-0.0344	-0.0895	-0.1003
	0.0791	0.0781	0.0324	0.0337	0.0162	0.0159
GDP per capita	-0.0414	-0.1100	-0.0431	0.0060	-0.0083	0.0017
	0.0623	0.0623	0.0255	0.0269	0.0128	0.0127
Average Schooling – male	-0.7935	-0.4603	2.2862	-2.6969	-1.0873	-0.6617
	5.6248	5.1453	2.3025	2.2186	1.1522	1.0477
Average Schooling – female	4.4524	1.3231	-1.2615	2.4480	1.3921	0.8318
	5.4193	4.8780	2.2184	2.1034	1.1101	0.9933
Percentage of Women in Municipality	-0.8442	-1.9207	-0.2849	-0.5860	-0.2316	-0.4656
	0.4217	0.3462	0.1726	0.1493	0.0864	0.0705
Percentage of Catholics in Municipality	0.2493	0.1258	0.0335	0.1289	0.0378	0.0427
	0.0792	0.0701	0.0324	0.0302	0.0162	0.0143
Percentage of Protestants in Municipality	0.1806	-0.0107	0.0057	0.0879	0.0162	0.0107
	0.1301	0.1142	0.0532	0.0492	0.0266	0.0232
District Magnitude	0.6415	1.2259	0.1068	0.4092	-0.1877	0.0093
	0.1324	0.1640	0.0542	0.0707	0.0271	0.0334
Vaccine pc	-2.2363	-2.6509	0.1322	-0.8836	-0.3640	-0.6246
	1.3330	1.8544	0.5457	0.7996	0.2731	0.3776
Infant Mortality pc	5400.00	6700.00	19.8376	1300	1100.00	1700.00
	1700.00	1900.00	700.7328	835.6467	350.6635	394.614
Expenditure in Education per capita	-0.0002	-0.0001	0.0001	0.0001	0.0001	0.0000
	0.0014	0.0004	0.0006	0.0002	0.0003	0.0001
Expenditure in Health per capita	0.0005	-0.0002	0.0000	-0.0001	0.0000	0.0000
	0.0012	0.0004	0.0005	0.0002	0.0002	0.0001
Region = Northeast	1.3819	0.1424	0.6094	0.2257	0.5232	0.0056
	2.2072	1.8567	0.9035	0.8006	0.4521	0.3781
Region = North	-0.6849	-1.5347	-0.3384	-0.132	-0.4257	-0.5922
	2.2638	1.8964	0.9267	0.8177	0.4637	0.3862
Region = Southeast	3.3725	0.9248	-1.0271	-1.2786	0.5236	-0.5669
	1.8556	1.6454	0.7596	0.7095	0.3801	0.335
Region = South	4.9310	5.8141	-1.2757	-0.8403	1.869	1.2284
	2.1817	1.7822	0.8931	0.7685	0.4469	0.3629
Constant	29.7167	107.6047	6.7674	13.2174	13.5798	24.6603
	21.1226	17.2591	8.6465	7.4421	4.3269	3.5144
Number of Observations	11168	13797	11168	13797	11168	13797
Adjusted R-Squared	0.1064	0.0884	0.0571	0.0696	0.1342	0.0987

(16) Table B-16, Regressions from table 3, section V-D, Ideology 4 (Right)

Independent Variables	Elected Males		Elected Females		Party Success	
	2000	2004	2000	2004	2000	2004
Percentage of female candidates	0.4234	0.3196	0.5731	0.4893	0.2710	0.2309
	0.045	0.0465	0.0218	0.0217	0.0129	0.0115
Percentage of female candidates <sup>2</sup>	-0.0123	-0.0091	-0.0038	-0.003	-0.0039	-0.0032
	0.0006	0.0005	0.0003	0.0002	0.0002	0.0001
Student per teacher	-0.1405	-0.2364	-0.0254	-0.0153	-0.0713	-0.1010
	0.0696	0.0904	0.0355	0.0421	0.0209	0.0224
GDP per capita	-0.0011	-0.1334	-0.0414	-0.0163	-0.0551	-0.0433
	0.064	0.0839	0.0310	0.0391	0.0183	0.0208
Average Schooling – male	0.0492	-4.2851	-3.1251	-0.2171	0.6267	-3.8601
	4.3318	5.7058	2.3208	2.6607	1.3694	1.4149
Average Schooling – female	2.4972	5.7789	2.3943	1.7557	0.3540	4.3881
	4.103	5.3952	2.2195	2.5159	1.3096	1.3378
Percentage of Women in Municipality	0.2041	-1.6729	-0.2744	-0.8110	-0.5777	-0.5944
	0.3553	0.3981	0.1810	0.1856	0.1068	0.0987
Percentage of Catholics in Municipality	0.2987	0.0208	0.0606	-0.0044	0.0765	0.0365
	0.0686	0.0819	0.0346	0.0382	0.0204	0.0203
Percentage of Protestants in Municipality	0.2107	-0.2295	-0.0568	-0.1312	-0.0497	-0.0767
	0.1105	0.1351	0.0600	0.0630	0.0354	0.0335
District Magnitude	0.5291	0.5846	-0.0743	-0.0404	-0.4011	-0.2129
	0.1327	0.2045	0.0621	0.0954	0.0367	0.0507
Vaccine pc	-1.5467	-0.0188	-0.4950	-0.212	-0.0827	-0.3097
	1.0947	2.1276	0.5428	0.9922	0.3203	0.5276
Infant Mortality pc	4100.00	861.6888	-0.9838	2000	308.4972	456.2854
	1400.00	1800.00	707.1757	843.3271	417.2813	448.4404
Expenditure in Education per capita	-0.0024	0.0004	-0.0001	0.0000	0.0004	0.0001
	0.0011	0.0007	0.0006	0.0003	0.0003	0.0002
Expenditure in Health per capita	0.0013	-0.0001	0.0000	0.0000	-0.0001	-0.0001
	0.0009	0.0007	0.0005	0.0003	0.0003	0.0002
Region = Northeast	-5.0702	5.0336	1.7139	3.0944	4.2934	2.6379
	1.8745	2.1206	0.9489	0.9889	0.5599	0.5258
Region = North	-1.9788	0.9794	0.7348	1.4517	0.5907	0.3261
	1.9295	2.1348	1.0022	0.9955	0.5914	0.5294
Region = Southeast	-3.2364	0.1718	-0.5878	-1.0541	0.2693	0.0103
	1.5692	1.8687	0.8094	0.8714	0.4776	0.4634
Region = South	-1.061	-6.8523	0.0653	-0.4736	-0.4942	-2.2016
	1.8365	2.0468	0.9802	0.9545	0.5784	0.5076
Constant	-5.4266	133.8810	12.7349	37.7556	35.9862	38.2652
	17.7198	19.9356	9.0253	9.2965	5.3255	4.9434
Number of Observations	11453	10173	11453	10173	11453	10173
Adjusted R-Squared	0.1395	0.1250	0.1019	0.0956	0.1666	0.2118



